

MODIS Technical Team Meeting
Thursday, January 15, 2004
GSFC Building 33, Room E125

Vince Salomonson chaired the meeting. In attendance were Dorothy Hall, Bruce Guenther, Chuck McClain, Jack Xiong, Robert Wolfe, Chris Justice, Steve Kempler, Michael King, and Ed Masuoka, with Yolanda Harvey taking the minutes.

1.0 Upcoming Meetings

- MODIS Science Team Meeting, Baltimore-Washington International Airport (BWI) Marriott — POSTPONED – Date TBD

2.0 Meeting Minutes

2.1 General Discussion

Salomonson reported that Dr. Mous Chahine/Aqua AIRS Team Leader has requested information/viewgraphs on monthly SST and cloud cover as derived from MODIS. He needs these for a scientific colloquium talk he will be giving at Goddard on February 6. Michael King and Peter Minnett will take steps to get Dr. Chahine what he needs.

Salomonson reported that Dr. Chahine would also like to get from MODIS what quantitative impacts/improvements for products were derived as a result of the Terra Deep Space Maneuver (DSM). It was decided that such information would be developed for Level 1B, SST, and cloud top pressure. The choice of these variables should show the range of improvements that resulted.

Salomonson noted that that Ocean Color review team meeting near Goddard on February 11 and 12 would benefit from publications describing the characterization/calibration of SeaWiFS. McClain reported that Bob Barnes has written two technical reviews on the subject, and Salomonson said that it would be good to make those available.

Salomonson reported that he is not planning on holding a Science Team Meeting until the installation of contracts and related arrangements are sufficiently in place so that team members can get money with which to travel to the meeting. He still is waiting for an official list of who is on the team. He is guessing that such a meeting cannot/will not until late February or sometime in March. Justice noted that the Land group will be meeting as soon as people have the money to attend. Salomonson said that he would like to see the Land meeting held in conjunction with the Science Team Meeting.

Salomonson reported that in his Team Leader proposal award letter, the emphasis for improvements was on getting the disciplines to better work together. As one step in that direction, he said he has talked to Brandon Maccherone (the MODARCH Webmaster) about seeking ways for all the MODIS sites to have similar methods of finding information and making them easier to use. He asked for names of people from the disciplines for Brandon to work with on this project. Wolfe volunteered for the Land site, and Norman Kuring was suggested for the Oceans/SeaWiFS sites.

2.2 Instrument Status

2.2.1 Terra MODIS

Xiong reported that Terra's Direct Broadcast (DB) ability is back online, having recycled the Science Formatting Engine (SFE). Ground data has been confirmed. The next component to be recycled is the SSR, but that hasn't been scheduled yet. Also, these recycles cause the loss of ten minutes of data at a time.

2.2.2 Aqua MODIS

Xiong reported that Aqua is operating normally.

2.3 DAAC

Kempler reported that the system is operating normally. Aqua forward and reprocessing proceeds at 5x. Distribution is up to 2 TB/day averages, which is two times the requirement. A lot of granules are going out. The system was 90% available over the reporting period, mostly because of a lot of improvements being made to the system. Kempler noted that the CloudSAT program is requesting MOD07 data, and are concerned that it will be dropped. Salomonson said that is indeed a problem because the MOD 07 product was not selected for maintenance in the recent NRA. He has discussed the issue with NASA Headquarters and it is under study. The MOD 07 and at least a couple of other products are in this same situation and the ultimate resolution has not been determined.

2.4 MODAPS

Masuoka reported that he sent out an email on this week's telecom on data corruption between the PDR server and the LPDAAC ingest servers. At present, the source of the data corruption has not been isolated. Less than one percent of the data product files have data corruption and the corruption is confined to only a few bytes per file. However, in every day examined so far there has been at least 1 file out of every 3,500 files that has had some data corruption. The LP DAAC will install hardware and software patches needed to detect corrupted files and reorder them from the PDR server by Thursday, January 22, 2004. Once the patches are installed the Land reprocessing will begin.

The discussion also touched on the corruption observed in the Terra Collection 4 Level 2G products that are archived at the LP DAAC. Wolfe replied that LDOPE is looking into what kinds of corruptions users might see (and posting them to the Land Q/A website). A very small portion of the image and overall data set is affected, so he thought that the impact on end-users should be pretty minimal. Since L2G products with corruption will end up being used to make the combined Terra/Aqua 8-day BRDF product, it will be monitored during reprocessing to assess any problems due to the limited corruption of the Terra L2G inputs.

Masuoka reported that he is working on an email message that details the steps needed to transition Ocean Color product generation from MODAPS to the Ocean Color Data Production System (OCDPS) [the SeaWiFS/SIMBIOS team] and expects to have a draft to Salomonson for his review by the next Tech Team meeting.

He also talked with Martha Maiden after the EOSIDS Evolution Study Team, and she mentioned (in terms of land workshops) that we ought to get community input and Dr.

Wickland's approval for the Land product suite we plan to reprocessing in the Collection 5 reprocessing.

McClain wondered what the status of the analysis of Earthshine in the solar diffuser on Terra MODIS was. Wolfe said that he is going to provide slides to Xiong on that topic for the upcoming MODIS ocean color review. McClain noted that this may also have an impact on the VIIRS design, so that Wolfe might want to talk to Esaia, who will be presenting on that subject at an upcoming NPP meeting.

2.5 Atmosphere

King reported that for the Aqua reprocessing, Mark Gray redid the visualization software for all of the L1B images on the Atmospheres website, and the new images make use of atmospheric correction (like Rapidfire) but geolocated and reprojected. These have started being implemented for Aqua reprocessing as well as Terra and Aqua forward streams. He is also trying to produce quicklook images of many level-2 products and post those for all of the granules (this has already been done for selected golden days). The products are looking good and are getting easier and more frequently used. This is especially true now that they have tools for ordering and using the data. He also noted that the MOVAS system for visualizing time series and spatial distribution of selected Terra and Aqua atmosphere products is very nice, as is the MDOP data ordering tool. These tools are linked from the MODIS atmosphere home page (<http://modis-atmos.gsfc.nasa.gov>) under 'Spotlight' as well as under the tools section (http://modis-atmos.gsfc.nasa.gov/tools_web.html).

2.6 Land

Wolfe reported that there was a Land Team Meeting today, at which they discussed the Aqua Collection 4 changes, and agreed that it's ready to go forward. They will finish adding the global PCR (product change request) on January 16, 2004. These changes will go into forward processing on data day February 2, 2004 (the start of an 8 day period). Reprocessing will begin on calendar day January 22nd after the LP DAAC has installed the checksum patches into their ingest servers.

2.7 Cryosphere

Hall reported seeing an email from Nazmi El Saleous wherein he attached samples of the sea ice browse products. Hall reviewed them and said that they look good, but needs to find out if George Riggs has any comments on them before they are finalized. She also asked about getting the snow products on the Polar/EASE-Grid, and Wolfe replied that he and George Riggs need to work on that. He said that he would have a plan by the next telecon with NSIDC.

2.8 Oceans

Salomonson said that on the issue of moving Ocean Color production to SeaWiFS, details are being worked out. Salomonson also said that, as he understands it, SeaWiFS will be distributing the Ocean Color data as well as processing and storing it. Kempler noted that there is still the historical daily data that has to be stored and distributed, and which is not reprocessed. McClain said that their approach is going to be to step back and simplify the products (in terms of formats and numbers; they will seek community consensus on which algorithms to keep and drop). They are going back to the SeaWiFS model of products, because that is what the community wants and asks for. If the

community wants more products, then they will provide them. Their focus will be on getting the radiances right so that they can make other products when they're needed/demanded.

Processing capabilities for MODIS ocean products will be put into SeaDAS and start being released February 1, 2004. This should simplify people's lives as well as give the community what they want right away. They'll be getting a direct feed from NOAA, process and subset the data, and make them available within two to three hours of acquisition. After that point, they can reprocess and pick up those parts that NOAA missed. Kempler voiced a concern about reaching the general public as well as the ocean scientist user community, and McClain responded that anyone can log in and order data via their browser. This will be free and open data distribution. They're going to try this and see how it works, but based on testing so far, it seems to work very well. He said that SeaWiFS should be able to deal with the full load once they become the official source of Ocean Color data.

3.0 Action Items

3.1 New Action Items

None.

3.2 Old Action Items

3.2.1 Tech Team to further discuss TRW using MODIS data for validation of the NPP/NPOESS production process.

Status: Open.

3.2.2 PIP to develop list of items to go into work plan for the new contract (EMD).

Status: Closed, Shaيدا sent a list to ESDIS Project several months ago.

3.2.3 Kempler to bring back some proposals for how the disciplines can deal with the DAAC distribution problem.

Status: Open.

3.2.4 Masuoka to pursue MODAPS sending L1A Ocean subsets to University of Miami.

Status: Closed, Per Gene Feldman the University of Miami folks will pull L1A subset from the SeaWiFS ftp site.